

SEQUENCE LISTING

<110> Paszty, Christopher  
Gao, Yongming

<120> Cysteine Knot Polypeptides: Cloaked-2 Molecules and Uses Thereof

<130> 01017/37428A

<150> US 60/208,550

<151> 2000-06-01

<150> US 60/223,542

<151> 2000-08-04

<160> 25

<170> PatentIn version 3.0

<210> 1

<211> 759

<212> DNA

<213> Homo sapiens

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ttcaagaatg atgccacgga aatcatcccc gagctcggag agtaccgccga gcctccaccg      180
gagctggaga acaacaagac catgaaccgg gcggagaacg gagggcgggc tccccaccac      240
ccctttgaga ccaaagacgt gtccgagtag agctgccgcg agctgcactt caccgcgtac      300
gtgaccgatg ggccgtgccg cagcgccaag cgggtcaccg agctggtgtg ctccggccag      360
tgcgggcccgg cgcgcctgct gcccacgcc atcggccgcg gcaagtgggtg gcgacctagt      420
gggcccgaact tccgctgcat ccccgaccgc taccgcgcgc agcgcggtgca gctgctgtgt      480
cccggtggtg aggcgcgcgc cgcgcgcaag gtgcgcctgg tggcctcgtg caagtgaag      540
cgctcaccg gcttccacaa ccagtcggag ctcaaggact tcgggaccga ggccgctcgg      600
ccgcagaagg gccggaagcc gcggccccgc gcccgagcgc ccaaagccaa ccaggccgag      660
ctggagaacg cctactagag cccgcccgcg ccctcccca ccggcgggcg ccccgccct      720
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<210> 2

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<213> Homo sapiens

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			20					25					30		
Met	Asn	Arg	Ala	Glu	Asn	Gly	Gly	Arg	Pro	Pro	His	His	Pro	Phe	Glu
		35					40					45			
Thr	Lys	Asp	Val	Ser	Glu	Tyr	Ser	Cys	Arg	Glu	Leu	His	Phe	Thr	Arg
	50					55					60				
Tyr	Val	Thr	Asp	Gly	Pro	Cys	Arg	Ser	Ala	Lys	Pro	Val	Thr	Glu	Leu
65					70					75					80
Val	Cys	Ser	Gly	Gln	Cys	Gly	Pro	Ala	Arg	Leu	Leu	Pro	Asn	Ala	Ile
				85					90					95	
Gly	Arg	Gly	Lys	Trp	Trp	Arg	Pro	Ser	Gly	Pro	Asp	Phe	Arg	Cys	Ile
			100					105					110		
Pro	Asp	Arg	Tyr	Arg	Ala	Gln	Arg	Val	Gln	Leu	Leu	Cys	Pro	Gly	Gly
		115					120					125			
Glu	Ala	Pro	Arg	Ala	Arg	Lys	Val	Arg	Leu	Val	Ala	Ser	Cys	Lys	Cys
	130					135					140				
Lys	Arg	Leu	Thr	Arg	Phe	His	Asn	Gln	Ser	Glu	Leu	Lys	Asp	Phe	Gly
145					150					155					160
Thr	Glu	Ala	Ala	Arg	Pro	Gln	Lys	Gly	Arg	Lys	Pro	Arg	Pro	Arg	Ala
				165					170					175	
Arg	Ser	Ala	Lys	Ala	Asn	Gln	Ala	Glu	Leu	Glu	Asn	Ala	Tyr		
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 <212> DNA  
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ggagagtacc ccgagcctcc tcctgagaac aaccagacca tgaaccgggc ggagaatgga	180
ggcagacctc cccaccatcc ctatgacgcc aaagatgtgt ccgagtacag ctgccgcgag	240
ctgcactaca cccgcttcct gacagacggc ccatgccgca gcgccaagcc ggtcaccgag	300
ttggtgtgct ccggccagtg cggccccgcg cggctgctgc ccaacgccat cgggcgcgtg	360
aagtgggtggc gcccgaaagg accggatttc cgctgcatcc cggatcgcta ccgcgcgcag	420
cgggtgcagc tgctgtgccc cgggggcgcg gcgccgcgct cgcgcaaggt gcgtctggtg	480
gcctcgtgca agtgcaagcg cctcacccgc ttccacaacc agtcggagct caaggacttc	540
gggccgggaga ccgcgcggcc gcagaagggt cgcaagccgc ggcccggcgc ccggggagcc	600

aaagccaacc aggcggagct ggagaacgcc tactag

636

<210> 4  
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<213> Mus musculus

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Leu Gly Glu Tyr Pro Glu Pro Pro Pro Glu Asn Asn Gln Thr Met Asn  
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Arg Ala Glu Asn Gly Gly Arg Pro Pro His His Pro Tyr Asp Ala Lys  
35 40 45  
Asp Val Ser Glu Tyr Ser Cys Arg Glu Leu His Tyr Thr Arg Phe Leu  
50 55 60  
Thr Asp Gly Pro Cys Arg Ser Ala Lys Pro Val Thr Glu Leu Val Cys  
65 70 75 80  
Ser Gly Gln Cys Gly Pro Ala Arg Leu Leu Pro Asn Ala Ile Gly Arg  
85 90 95  
Val Lys Trp Trp Arg Pro Asn Gly Pro Asp Phe Arg Cys Ile Pro Asp  
100 105 110  
Arg Tyr Arg Ala Gln Arg Val Gln Leu Leu Cys Pro Gly Gly Ala Ala  
115 120 125  
Pro Arg Ser Arg Lys Val Arg Leu Val Ala Ser Cys Lys Cys Lys Arg  
130 135 140  
Leu Thr Arg Phe His Asn Gln Ser Glu Leu Lys Asp Phe Gly Pro Glu  
145 150 155 160  
Thr Ala Arg Pro Gln Lys Gly Arg Lys Pro Arg Pro Gly Ala Lys Ala  
165 170 175  
Asn Gln Ala Glu Leu Glu Asn Ala Tyr  
180 185

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<212> PRT  
<213> Homo sapiens

<400> 5

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Ala Thr Glu Ile Ile Pro Glu Leu Gly Glu Tyr Pro Glu Pro Pro Pro  
35 40 45

Glu Leu Glu Asn Asn Lys Thr Met Asn Arg Ala Glu Asn Gly Gly Arg  
50 55 60

Pro Pro His His Pro Phe Glu Thr Lys Asp Val Ser Glu Tyr Ser Cys  
65 70 75 80

Arg Glu Leu His Phe Thr Arg Tyr Val Thr Asp Gly Pro Cys Arg Ser  
85 90 95

Ala Lys Pro Val Thr Glu Leu Val Cys Ser Gly Gln Cys Gly Pro Ala  
100 105 110

Arg Leu Leu Pro Asn Ala Ile Gly Arg Gly Lys Trp Trp Arg Pro Ser  
115 120 125

Gly Pro Asp Phe Arg Cys Ile Pro Asp Arg Tyr Arg Ala Gln Arg Val  
130 135 140

Gln Leu Leu Cys Pro Gly Gly Glu Ala Pro Arg Ala Arg Lys Val Arg  
145 150 155 160

Leu Val Ala Ser Cys Lys Cys Lys Arg Leu Thr Arg Phe His Asn Gln  
165 170 175

Ser Glu Leu Lys Asp Phe Gly Thr Glu Ala Ala Arg Pro Gln Lys Gly  
180 185 190

Arg Lys Pro Arg Pro Arg Ala Arg Ser Ala Lys Ala Asn Gln Ala Glu  
195 200 205

Leu Glu Asn Ala Tyr  
210

<210> 6  
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<212> PRT  
<213> Mus musculus

<400> 6

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1 5 10 15

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20 25 30

Ala Thr Glu Val Ile Pro Gly Leu Gly Glu Tyr Pro Glu Pro Pro Pro  
35 40 45

Glu Asn Asn Gln Thr Met Asn Arg Ala Glu Asn Gly Gly Arg Pro Pro  
50 55 60

His His Pro Tyr Asp Ala Lys Asp Val Ser Glu Tyr Ser Cys Arg Glu  
65 70 75 80

Leu His Tyr Thr Arg Phe Leu Thr Asp Gly Pro Cys Arg Ser Ala Lys  
85 90 95

Pro Val Thr Glu Leu Val Cys Ser Gly Gln Cys Gly Pro Ala Arg Leu  
100 105 110

Leu Pro Asn Ala Ile Gly Arg Val Lys Trp Trp Arg Pro Asn Gly Pro

115	120	125
Asp Phe Arg Cys Ile Pro Asp Arg Tyr Arg Ala Gln Arg Val Gln Leu		
130	135	140
Leu Cys Pro Gly Gly Ala Ala Pro Arg Ser Arg Lys Val Arg Leu Val		
145	150	155
Ala Ser Cys Lys Cys Lys Arg Leu Thr Arg Phe His Asn Gln Ser Glu		
	165	170
Leu Lys Asp Phe Gly Pro Glu Thr Ala Arg Pro Gln Lys Gly Arg Lys		
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Pro Arg Pro Gly Ala Lys Ala Asn Gln Ala Glu Leu Glu Asn Ala Tyr		
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<213> Artificial

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<223> Artificial: PCR primer  
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24

<210> 8  
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<212> DNA  
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<220>  
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26

<210> 9  
<211> 29  
<212> DNA  
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<220>  
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<400> 9

gccaggggtg gcaagccttc aagaatgat

29

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cgatccggga tgcagcggaa gtcg

24

<210> 11

<211> 27

<212> DNA

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<223> Artificial: PCR primer

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ccatcctaatac gactcact atagggc

27

<210> 12

<211> 24

<212> DNA

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<223> Artificial: PCR primer

<400> 12

tgtcaggaag cgggtgtagt gcag

24

<210> 13

<211> 23

<212> DNA

<213> Artificial

<220>

<223> Artificial: PCR primer

<400> 13

actcactata gggctcgagc ggc

23

<210> 14

<211> 25

<212> DNA

<213> Artificial

<220>

<223> Artificial: PCR primer

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25

<210> 15

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ccatcctaata acgactcact atagggc 27  
  
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ggtcaccgag ttggtgtgct c 21  
  
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<400> 18  
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 <212> DNA  
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tttggatccc gatcgctagt aggcgttctc cagctccgcc t 41

<210> 21  
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<400> 21

tgtgtctcgt ctgcctgctg gtacaca 27

<210> 22  
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 <223> Artificial: PCR primer

<400> 22

gaagtcgggc ccactaggtc gcc 23

<210> 23  
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 <212> PRT  
 <213> Artificial: HIV TAT peptide

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Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg  
 1 5 10

<210> 24  
 <211> 15  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Artificial: FITC conjugated - HIV TAT peptide construct

<400> 24

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 1 5 10 15



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<210> 25
<211> 183
<212> PRT
<213> Homo sapiens
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<400> 25

Phe Lys Asn Asp Ala Thr Glu Ile Leu Tyr Ser His Val Val Lys Pro  
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Val Pro Ala His Pro Ser Ser Asn Ser Thr Leu Asn Gln Ala Arg Asn  
20 25 30

Gly Gly Arg His Phe Ser Asn Thr Gly Leu Asp Arg Asn Thr Arg Val  
35 40 45

Gln Val Gly Cys Arg Glu Leu Arg Ser Thr Lys Tyr Ile Ser Asp Gly  
50 55 60

Gln Cys Thr Ser Ile Ser Pro Leu Lys Glu Leu Val Cys Ala Gly Glu  
65 70 75 80

Cys Leu Pro Leu Pro Val Leu Pro Asn Trp Ile Gly Gly Gly Tyr Gly  
85 90 95

Thr Lys Tyr Trp Ser Arg Arg Ser Ser Gln Glu Trp Arg Cys Val Asn  
100 105 110

Asp Lys Thr Arg Thr Gln Arg Ile Gln Leu Gln Cys Gln Asp Gly Ser  
115 120 125

Thr Arg Thr Tyr Lys Ile Thr Val Val Thr Ala Cys Lys Cys Lys Arg  
130 135 140

Tyr Thr Arg Gln His Asn Glu Ser Ser His Asn Phe Glu Ser Met Ser  
145 150 155 160

Pro Ala Lys Pro Val Gln His His Arg Glu Arg Lys Arg Ala Ser Lys  
165 170 175

Ser Ser Lys His Ser Met Ser  
180